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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/430,950	11/01/1999	HAJIME INOUE	450100-3247.	8020
20999	7590	07/08/2004	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			NALEVANKO, CHRISTOPHER R.	
			ART UNIT	PAPER NUMBER
			2611	6

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/430,950

Applicant(s)

INOUE ET AL.

Examiner

Christopher R Nalevanko

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 November 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22-48 is/are pending in the application.
- 4a) Of the above claim(s) 1-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 08/520,564.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 41-44 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by De Bey.

Regarding Claim 41, De Bey shows a method of receiving program information comprising steps of storing a segment of the received program information (page 3 lines 29-35) and reading the stored segment of program information while buffering the program information which continues to be received (page 4 lines 5-11, 22-29, page 5 lines 5-11, page 10 lines 29-38, page 11 lines 1-17, page 13 lines 1-35).

Regarding Claim 42, De Bey shows that the program information is buffered by writing the information into a storage device and reading the program information from the storage device (page 4 lines 22-35, page 5 lines 2-17, page 8 lines 33-38, page 15 lines 20-26, page 16 lines 4-8, page 17 lines 12-31, page 19 lines 5-15). Also, De Bey shows a real-time viewing method, which inherently reads the stored information seamlessly (page 3 lines 29-35).

Regarding Claim 43, De Bey shows a storage device for storing segments of received program information (page 3 lines 29-35, fig. 2 item 46), a buffer for buffering the program information that is received (fig. 2 item 42), and a read out device for reading out the segments of program information while the buffer is buffering received

Art Unit: 2611

information (page 4 lines 5-11, 22-29, page 5 lines 5-11, page 10 lines 29-38, page 11 lines 1-17, page 13 lines 1-35, fig. 2 item 50)

Regarding Claim 44, De Bey shows that the program information is buffered by writing the information into a storage device and reading the program information from the storage device (page 4 lines 22-35, page 5 lines 2-17, page 8 lines 33-38, page 15 lines 20-26, page 16 lines 4-8, page 17 lines 12-31, page 19 lines 5-15). Also, De Bey shows a real-time viewing method, which inherently reads the stored information seamlessly (page 3 lines 29-35).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 22-24, 26-35, 37, 40, 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Bey in further view of Ullrich et al.

Regarding Claim 22, De Bey shows a method of receiving program information supplied on plural channels (page 12 lines 5-35) comprising the steps of storing a segment of the program information supplied on one of the channels (page 3 lines 29-35), selecting a particular channel (page 12 lines 20-35), receiving the program information supplied on the particular channel (page 12 lines 5-35), and reading the stored segment of program information while buffering the program information supplied on the particular

channel in response to the channel (page 4 lines 22-35, page 5 lines 2-17, page 8 lines 33-38, page 15 lines 20-26, page 16 lines 4-8, page 17 lines 12-31, page 19 lines 5-15). De Bey fails to show that the channels are time-offset. Ullrich shows a plurality of time-offset channels (col. 2 lines 25-40, fig. 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify De Bey with the time-offset channels of Ullrich in order to provide the user with the ability to view video, nearly on demand with a relatively short wait time, without dramatically increasing the cost of implementation.

Regarding Claim 23, Ullrich shows that the time-offset is equal to the difference between the start time of a program on one channel and the start time of the program on another channel (col. 8 lines 1-42, fig. 3).

Regarding Claim 24, De Bey shows that the program information is buffered by writing the information into a storage device and reading the program information from the storage device (page 4 lines 22-35, page 5 lines 2-17, page 8 lines 33-38, page 15 lines 20-26, page 16 lines 4-8, page 17 lines 12-31, page 19 lines 5-15). Also, De Bey shows a real-time viewing method, which inherently reads the stored information seamlessly (page 3 lines 29-35).

Regarding Claim 26, De Bey shows that the channel over which the segment is supplied and the channel over which the buffered program information is supplied are the same (page 19 lines 4-16).

Regarding Claim 27, Ullrich shows the same program information is supplied simultaneously on a plurality of time-offset channels (col. 2 lines 20-40). De Bey further

Art Unit: 2611

shows storing segments of video at the start of the program and continuing throughout the entire program. Also, the segments that are buffered are equal to the maximum time it takes the system to respond, thus equaling the time it would take for the system to begin storing the channel to the time the channel is displayed (page 13 lines 10-36, page 15 lines 20-26).

Regarding Claim 28, De Bey shows reading out the stored segments as soon as the channel is selected (page 15 lines 20-26).

Regarding Claim 29, De Bey shows that the information is a video program (page 3 lines 10-37).

Regarding Claim 30, De Bey shows an apparatus for receiving program information supplied on plural channels (page 12 lines 5-35) comprising a storage device for storing a segment of the program information supplied on one of the channels (page 3 lines 29-35, fig. 2 item 46), a channel selector for selecting a particular channel (page 12 lines 20-35) and for receiving the program information supplied on the particular channel (page 12 lines 5-35), a buffer for buffering the program information on the particular channel (page 3 lines 31-35, fig. 2 item 42), and a read out device for reading out the stored segment of program information while buffering the program information supplied on the particular channel in response to the channel (page 4 lines 22-35, page 5 lines 2-17, page 8 lines 33-38, page 15 lines 20-26, page 16 lines 4-8, page 17 lines 12-31, page 19 lines 5-15). De Bey fails to show that the channels are time-offset. Ullrich shows a plurality of time-offset channels (col. 2 lines 25-40, fig. 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify De Bey

with the time-offset channels of Ullrich in order to provide the user with the ability to view video, nearly on demand with a relatively short wait time, without dramatically increasing the cost of implementation.

Regarding Claim 31, Ullrich shows that the time-offset is equal to the difference between the start time of a program on one channel and the start time of the program on another channel (col. 8 lines 1-42, fig. 3).

Regarding Claim 32, De Bey shows that the program information is buffered by writing the information into a storage device and reading the program information from the storage device (page 4 lines 22-35, page 5 lines 2-17, page 8 lines 33-38, page 15 lines 20-26, page 16 lines 4-8, page 17 lines 12-31, page 19 lines 5-15). Also, De Bey shows a real-time viewing method, which inherently reads the stored information seamlessly (page 3 lines 29-35).

Regarding Claim 33, De Bey and Ullrich fail to show using a hard disk drive for a buffer. Official Notice is given that it is well known and expected in the art to use a hard disk drive for buffers. This provides ample storage space and a relatively low expense. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a hard disk drive to provide ample storage space at an inexpensive price.

Regarding Claim 34, De Bey and Ullrich fail to show using a hard disk drive for a storage. Official Notice is given that it is well known and expected in the art to use a hard disk drive for storage. This provides ample storage space and a relatively low expense. Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to use a hard disk drive to provide ample storage space at an inexpensive price.

Regarding Claim 35, De Bey shows that the storage is able to read in segments at the same time as it reads out segments to the display device, operating in real-time (page 10 lines 30-38, page 13 lines 10-35, page 15 lines 5-37).

Regarding Claim 37, De Bey shows that the channel over which the segment is supplied and the channel over which the buffered program information is supplied are the same (page 19 lines 4-16).

Regarding Claim 40, De Bey shows that the information is a video program (page 3 lines 10-37).

Regarding Claim 48, De Bey shows a method of supplying program information comprising transmitting program information simultaneously on a plurality of channels to a receiving station so as to permit the recording of a segment of the transmitted program information commencing from a start time and lasting no more than a predetermined duration that is less than the duration of the program information (page 3 lines 29-35, page 4 lines 5-11, page 8 lines 30-38, page 10 lines 31-38, page 11 lines 3-13, page 12 lines 5-35, page 13 lines 5-36) and reading the recorded segment of program information while buffering the program information that is transmitted on the same channel as the segment of program information or on any other of the channels (page 3 lines 29-35, page 12 lines 5-35, page 15 lines 20-26, page 17 lines 12-26). De Bey shows that the segments are broken into sizes less than the 'Maximum Response Time.' This insures that the segments can be displayed in real-time without the fear of not receiving additional



segments in time for display. This segment duration is less than the duration of the program information. De Bey also shows that the buffer receives information and displays this information in real-time, effectively reading and buffering the information at the same time. De Bey fails to show a plural time offset channels, being the same from channel to channel so that the start time of the program information on one channel differs from the start time of the program information on another channel by the time offset. Ullrich shows a plurality of time offset channels wherein the start times of different channels differ by the time-offset (col. 2 lines 25-40, fig. 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify De Bey with the time-offset channels of Ullrich in order to provide the user with the ability to view video, nearly on demand with a relatively short wait time, without dramatically increasing the cost of implementation.

3. Claims 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Bey.

Regarding Claim 45, De Bey fails to show using a hard disk drive for a buffer. Official Notice is given that it is well known and expected in the art to use a hard disk drive for buffers. This provides ample storage space and a relatively low expense. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a hard disk drive to provide ample storage space at an inexpensive price.

Regarding Claim 46, De Bey fails to show using a hard disk drive for a storage. Official Notice is given that it is well known and expected in the art to use a hard disk

Art Unit: 2611

drive for storage. This provides ample storage space and a relatively low expense.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a hard disk drive to provide ample storage space at an inexpensive price.

Regarding Claim 47, De Bey shows that the storage is able to read in segments at the same time as it reads out segments to the display device, operating in real-time (page 10 lines 30-38, page 13 lines 10-35, page 15 lines 5-37).

4. Claims 25 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Bey in further view of Ullrich et al and Blahut et al.

Regarding Claim 25, De Bay shows time segments that are substantially equal to the maximum response time of a selected program, but De Bey and Ullrich fail to specifically state that the time segments are substantially equal to the time-offset. Blahut shows using "filler" segments provided to the user that are substantially equal to the time offset. These "filler" segments allow users to access video programming at a minimal wait time (col. 7 lines 40-67, col. 8 lines 15-65, col. 9 lines 9-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify De Bey and Ullrich with segments substantially equal to the offset time so that the system could use the same set of video segments for creating the multiple time-offset streams and providing the segmented video for storage. This would alleviate the need for two different sets of program information.

Regarding Claim 36, De Bay shows time segments that are substantially equal to the maximum response time of a selected program, but De Bey and Ullrich fail to

Art Unit: 2611

specifically state that the time segments are substantially equal to the time-offset. Blahut shows using "filler" segments provided to the user that are substantially equal to the time offset. These "filler" segments allow users to access video programming at a minimal wait time (col. 7 lines 40-67, col. 8 lines 15-65, col. 9 lines 9-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify De Bey and Ullrich with segments substantially equal to the offset time so that the system could use the same set of video segments for creating the multiple time-offset streams and providing the segmented video for storage. This would alleviate the need for two different sets of program information.

5. Claim 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Bey in further view of Ullrich et al and Banker et al.

Regarding Claim 38, De Bey shows that the same program information is supplied on plural channels and the segment is formed by storing the program information on the channel commencing at a start time (page 12 lines 5-35, page 13 lines 5-35). De Bey also shows replacing stored segments with other segments from other channels (page 11 lines 5-15, page 12 lines 35-38, page 13 lines 1-10). De Bey and Ullrich fail to show replacing a segment if the start time of a different channel is reached. Banker shows using multiple time-offset channels that allow the user to access other program channel segments when a start time is reached, in the process of issuing a 'pause' command (col. 12 lines 25-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of De Bey and Ullrich with the ability to overwrite segments when the start time of a different channel is

reached in order to provide the user with the data stream that is closet to the beginning of the stream. This allows the user to access the beginning of a stream without the need for a large memory on the user side to store the received video that the user is not watching.

Regarding Claim 39, De Bey shows reading out the stored segments as soon as the channel is selected (page 15 lines 20-26).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Blumhardt et al U.S. Patent No. 5,629,978 discloses a service delivery using broadband.

Youden et al U.S. Patent No. 5,606,359 discloses video on demand system with multiple data sources configured to provide VCR-like services.

Biliris et al U.S. Patent No. 5,720,037 discloses a multimedia on-demand server.

Walker et al U.S. Patent No. 5,168,353 discloses a video distribution system allowing viewer access to time staggered identical prerecorded programs.

Dulac U.S. Patent No. 5,899,582 discloses a movie-on-demand disk storage loop architecture.

Nishimura et al U.S. Patent No. 5,689,298 discloses a method and apparatus for multiple readout of digital video data with faster playback mode switching.

Cohen U.S. Patent No. 4,949,187 discloses a video communications system having a remotely controlled central source of video and audio data.

Baker et al U.S. Patent No. 5,583,561 discloses a multi-cast digital video data server using synchronization groups.

Art Unit: 2611

Hooper et al U.S. Patent No. 5,414,455 discloses a segmented video on demand system.

O'Callaghan et al U.S. Patent No. 5,477,263 discloses a method and apparatus for video on demand with fast forward, reverse and channel pause.

Srivastava et al U.S. Patent No. 5,847,750 discloses a method of accessing a repetitively transmitted video program.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R Nalevanko whose telephone number is 703-305-8093. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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